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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/684,828	10/14/2003	Manilal S. Dahayanake	56,0555CNT2	9858

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EXAMINER
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TUCKER, PHILIP C

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/684,828	DAHAYANAKE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Philip C. Tucker	1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 114-145 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 141 is/are allowed.
- 6) ☒ Claim(s) 114-140 is/are rejected.
- 7) ☒ Claim(s) 142-145 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 114-140 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification fails to teach the mineral acid at a concentration sufficient to reduce the pH of the viscoelastic fluid to about 3 or less, as claimed in the present claims. Furthermore, since this is a continuation of 10/216,604, which is a division of 09/612669, which is a continuation of 09/093,131 none of which teach this limitation, this adds new matter to the claims, and such should be deleted.

### ***Claim Objections***

3. Claims 142-145 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The betaine or

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zwitterionic surfactants claimed in claims 142-145 are neither amine oxides or anionic surfactants.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 114-118, 120, 122-126, 129, 132 and 138 are rejected under 35 U.S.C. 102(b) as being anticipated by Allan (2002/0039972).

Allan teaches a method of fracturing using a fracturing fluid which comprises a surfactant within the scope of the present invention, an organic salt, and a mineral acid, such as HCl (see the claims and paragraph 0023). The drawing shows that the fluid is used a pH levels below 3. The prior continuity applications do not provide support for the invention now being claimed with respect to the use of a mineral acid to reduce pH to a level of 3 or below, and as such Allan qualifies as prior art under 35 USC 102 (b).

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6. Claims 114-117, 121-131 and 138-139 are rejected under 35 U.S.C. 102(e) as being anticipated by Francini (2005/0020454)

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Francini teaches a method of well treatment using a fluid above the fracturing pressure of a subterranean formation, wherein the fluid comprises a betaine surfactant (claims 14-16 and 19), hydrochloric acid within the scope of the present invention, and an organic acid chelating agent (see the examples and paragraph 0030). The prior continuity applications do not provide support for the invention now being claimed with respect to the use of a mineral acid to reduce pH to a level of 3 or below, and as such Francini qualifies as prior art under 35 USC 102 (e).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 134-137 and 140 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dobson (2002/0147114).

Dobson teaches a fluid for use in a subterranean formation which comprises an amine oxide surfactant and hydrochloric acid within the scope of the present invention (see paragraphs 0015 – 0019 and 0028). The fluids may be injected above the fracture pressure of the formation (paragraphs 0007 and 0041, and claim 32). Dobson differs in not specifically exemplifying the use of an anionic surfactant in the composition.

Dobson however teaches the use of long chain fatty salts as lubricants or corrosion inhibitors (0032 – 0033). Such are anionic surfactants. It would be obvious to one of ordinary skill in the art to utilize the salts of carboxylic acids in the fluid of Dobson, given the teaching of Dobson that such are useful as lubricants or corrosion inhibitors.

Dobson differs in not teaching a specific ratio of the salt of carboxylic acid to amine oxide as in claim 137. However, the variation of the relative amounts of the salt and amine oxide to obtain optimum fracturing fluid performance would be obvious to one of ordinary skill in the art. The energizing of fracturing fluids to facilitate easy cleanup from the wells is well known in the art, and would be an obvious variation to one of ordinary skill.

9. Claim 141 is allowable over the art of record.


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10. The following is a statement of reasons for the indication of allowable subject matter: The method of claim 141 further limits the method of claim 1 of prior patent 6,703,352 by foaming or energizing the fluid.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip C. Tucker whose telephone number is 571-272-1095. The examiner can normally be reached on Monday - Friday, Flexible schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Philip C Tucker  
Primary Examiner  
Art Unit 1712

PCT-3893